Behind the Pesticide Label

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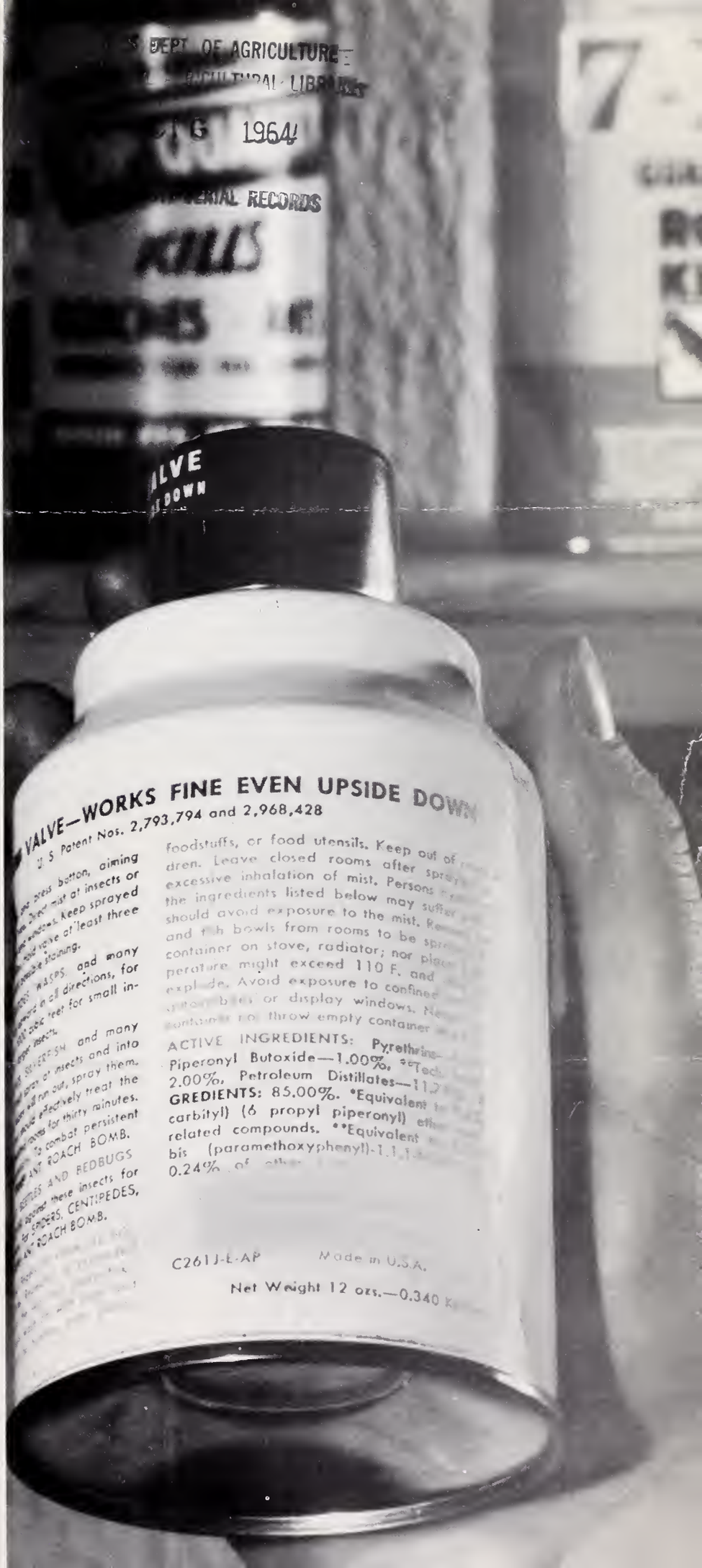
The labels on the pesticides you buy help you use the product with safety for yourself, your family, and pets. Behind those labels are years of research work and the combined knowledge of laboratory and field scientists—chemists, toxicologists, pathologists, entomologists, and engineers—in private industry and the Government.

For your protection, a Federal law requires that every pesticide be registered by the U.S. Department of Agriculture before it can legally be shipped in interstate commerce. The pesticide must do the job for which it is intended, and be safe for the proposed use, or it will not be registered.

Authority for this public service is provided by the Federal Insecticide, Fungicide, and Rodenticide Act, which is administered by the Pesticides Regulation Division of USDA's Agricultural Research Service. This law regulates the labeling and interstate shipment of all products that are to be used as insecticides, fungicides, rodenticides, herbicides, germicides, algaecides, nematocides, plant growth regulators, defoliants, and desiccants; and poisons or repellents intended for use against pest birds, fish, invertebrate animals, or mammals.

The following pages show the registration and enforcement process—a program for consumer protection.

A buyer studies the ingredient statement on the label of one of the many pesticides available on the market. BN–21641



Thorough Investigation Precedes the Stamp

To obtain registration of a chemical to be used in pest control, the developer of the chemical must furnish the Pesticides Regulation Division sufficient research data to support his claims as to the chemical's effectiveness and safety and all the directions for its use.

These data often represent years of research and testing and must be complete enough to satisfy all the requirements of the Federal law.

When received by the Pesticides Regulation Division, the scientific data are reviewed by specialists in many scientific fields, who seek answers to three basic questions about the product:

1. Does the Chemical Do the Job?

To evaluate a pesticide's effectiveness, Division scientists, specializing in the area of its intended use, review the supporting data and the statements on the proposed label. An insecticide, for example, would be reviewed by the entomologists, a rodenticide by the animal biologists, and a herbicide by the weed control specialists. The scientists must be satisfied that the product will give the degree of control claimed.

2. Is It Safe to Use?

Pharmacologists review the applicant's toxicological research data to make certain that the product can be safely handled, stored, and used in the manner intended.

3. Does It Leave a Residue?

If the data show that a chemical leaves a residue, that pesticide will not be registered until an adequate "tolerance" level has been established under the provisions of the Food, Drug, and Cosmetic Act. A "tolerance" is the maximum amount of a pesticide residue that is legally permitted to remain on or in a food or feed. The applicant must petition the Food and Drug Administration of the Department of Health, Education, and Welfare to set a tolerance for his product. Chemists in the Pesticides Regulation Division require data to make certain that residues will be

LEFT—*An application for registration, accompanied by supporting data, arrives at the desk of a scientist in the Pesticides Regulation Division. Every page of this stack of data will be studied in determining whether the product meets registration requirements.* BN–21637

BELOW—*An application accepted for registration is numbered, dated, and stamped "ACCEPTED."* BN–21643

# of Registration

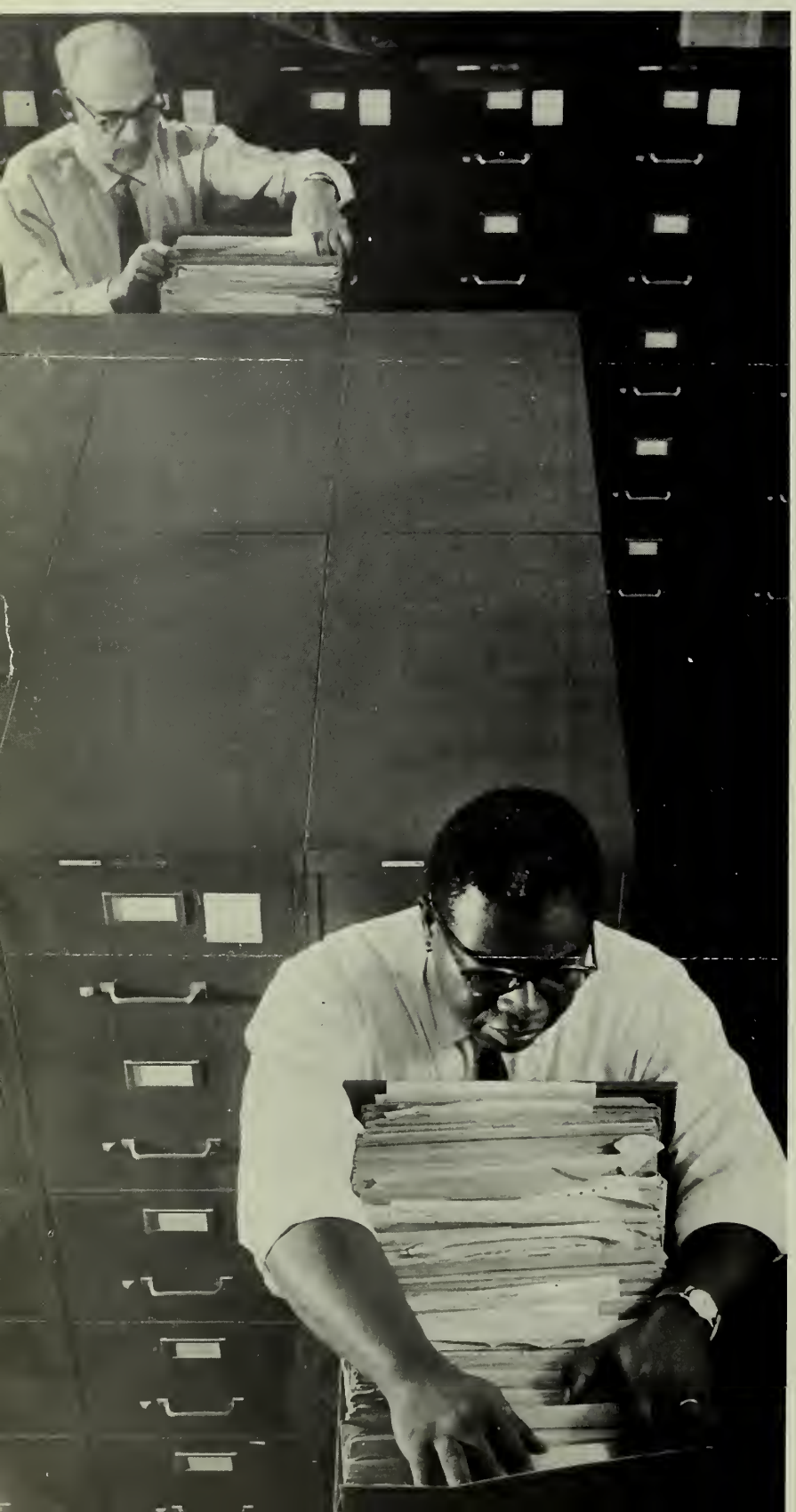
within the limits set by FDA when the product is used according to directions on the label.

Chemists also review the brand name, ingredient statement, and net-contents statement to make sure they are in proper form, bear the correct chemical names, are legible, are not misleading, and are printed in the proper position on the label.

If the applicant's claims are accepted by all the scientists who have reviewed them, a registration number is assigned, and a copy of the application is stamped "ACCEPTED," dated, and returned to the applicant. The product, bearing the accepted label, can then legally be marketed in interstate commerce.

If the scientists find that the product, including its labeling, does not comply with the requirements of the law, the applicant is notified. He will be given an opportunity to procure the necessary data and make any appropriate changes in the label to meet the requirements, and then resubmit his request for registration.

Enforcement Backs Up Registration

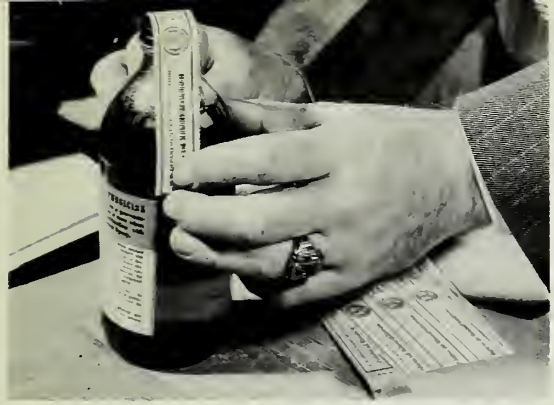


Once on the market, a pesticide must continue to meet the requirements of registration. The Pesticides Regulation Division has inspectors located throughout the United States who work closely with State enforcement officials.

These men purchase pesticides on the open market and send them to the Division's laboratories for examination. The pesticides are analyzed to determine if the active ingredients are present in the amounts stated on the label or if the product contains any adulterants or other materials not listed. Laboratory or field tests also may be made to check the effectiveness of the product when used according to label directions. Pharmacological tests are made to determine if safety precautions are adequate.

When a product is found to be in violation of the law, the Division takes steps necessary to remove it from the market. If circumstances warrant, criminal action may be instituted against the shipper.

LEFT—*The Division's file contains all the registrations—about 57,000 of them. It is referred to whenever a question comes up about a particular product.* BN–21639



An investigator seals a pesticide sample purchased from a retail store before sending it to the laboratory for chemical and biological evaluations. He collects samples at random as well as samples of products suspected of being marketed in violation of the law. BN–21642

A pharmacologist administers a pesticide to this test rat to determine its probable effect if the pesticide were accidentally swallowed by humans. This is one of several tests required to evaluate pesticide hazards. Results are compared with toxicity data submitted with the application for registration. BN–22243

ABOVE—*A chemist analyzes a sample of a pesticide being checked as to its composition in one of the Division's laboratories.* N–11822

BELOW—*A test is made to determine the ability of an insecticide to kill army worms by fumigation. The chemical is isolated between two sheets of filter paper crimped into the lid of a Petri dish, and the worms are placed on a cut leaf in the dish. Since the insects cannot come in contact with the chemical, any deaths would be due to fumigation.* N–3579

Insecticides used on domestic animals and pets must be effective against the pest but harmless to the animal. A flea powder is tested on an infested dog to determine the flea-killing power. Dead fleas drop off and are counted. Here, the dog is being examined to make sure no skin irritation has been caused by the insecticide. BN–18512

Potency of a disinfectant is tested by smearing a soapstone slab with bacteria, scrubbing with the chemical, swabbing the surface with cotton, and touching the cotton to agar in the tube. Bacteria will grow in the agar if the germicide failed. N–13757

ABOVE—*A technician checks the water temperature in an apparatus for testing algaecides for use in water-cooling systems. Wooden paddles are rotated in and out of treated water in small tanks. Algae develop readily on the paddles when the treatment has not been effective. One of the tanks contains untreated water for use as a control.* BN–21818

BELOW—*Nematodes are extracted from treated soil samples to determine the effectiveness of nematocides. Soil samples are placed in the top of a long column in which water under pressure is gradually flowing upward. The soil particles, being heavy enough to overcome this backward flow, settle to the bottom. Nematodes, being lighter, are suspended at various levels and can be removed through valves in the column. This scientist is opening a valve about midway down the column.* BN–21819

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Read the Label!

Each time you use a pesticide, be sure to read its label and follow the directions for safe and proper use of the product. Your U.S. Department of Agriculture has made sure the label contains all the information necessary. It is your responsibility to read it, follow the directions, and heed the precautions.

This housewife is removing a roach-killing chemical from its storage place in a cabinet located high above the floor in her laundry room. The inset below shows the items that are required to be on every registered label. BN–21640